Application No.: 09/663,942

Attorney Docket No.: 5725.0290-01

Customer No.: 22,852

## **AMENDMENTS TO THE CLAIMS**

Claims 1-9. (Cancelled)

10. (currently amended) A composition according to claim 1, A composition comprising, in a cosmetically acceptable support suitable for dyeing the hair, at least one direct dye and at least one crosslinked polymer containing acrylic residue units of the structure

$$CH_2 = C - C - OH$$
 $R_1 = 0$ 

in which  $R_1$  denotes H,  $CH_3$  or  $C_2H_5$ , and  $C_{10}$ - $C_{30}$  alkyl acrylate residue units, wherein said composition is a direct dyeing composition for the hair, wherein said at least one direct dye is an acid azo dye of formulae (I) or (I'):

$$SO_3M$$
 $N=N$ 
 $N=N$ 
 $SO_3M)n$ 
 $SO_3$ 

In which Z denotes (I')a or (I')b:

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$$R_3$$
 (I')a  $(SO_3M)p$ 

in which:

n denotes zero or 1,

p denotes zero, 1 or 2,

M denotes H or an alkali or alkaline-earth counterion, an organic amine which may be hydroxylated or not hydroxylated, or ammonia,

R<sub>1</sub> denotes H, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or an cycloalkylaryl radical,

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R<sub>2</sub> denotes H, an -NH<sub>2</sub> radical, an -HN-CO-CH<sub>3</sub> radical or an -NHSO<sub>2</sub>-phenyl radical,

R<sub>3</sub> denotes H, or a -N=N-(para-nitrophenyl) radical,

 $R_4$  denotes a H, a  $C_1$ - $C_4$  alkyl radical, a  $C_1$ - $C_4$  alkoxyl radical, or forms a naphtalenyl ring with the adjacent carbon atom which is unsubstitued of the phenyl group,

 $R_5$  denotes H, a  $C_1$ - $C_4$  alkyl radical, an -SO $_3$ Na radical, a -NH $_2$  radical, an -HN-CO-CH $_3$  radical or an -NO $_2$  radical, and in which at least one -SO $_3$ M group is present in formulae (I), (I')a and (I')b.

11. (currently amended) A composition according to claim 1, A composition comprising, in a cosmetically acceptable support suitable for dyeing the hair, at least one direct dye and at least one crosslinked polymer containing acrylic residue units of the structure

$$CH_2 = C - C - OH$$
 $\begin{vmatrix} & & & \\ & & & \\ & & & \\ & & & O \end{vmatrix}$ 

in which  $R_1$  denotes H,  $CH_3$  or  $C_2H_5$ , and  $C_{10}$ - $C_{30}$  alkyl acrylate residue units, wherein said composition is a direct dyeing composition for the hair, wherein said at least one direct dye is a cationic azo dye of formulae (II), (III), (IV), (V), (VI), (VI'), (VII) and their mesomeric forms, wherein

(i) dyes of formulae (II) and (III) are:

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$$R_1$$
 $R_2$ 
 $R_3$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 

$$R_4$$
 $R_4$ 
 $R_4$ 

in which

R<sub>1</sub> denotes H or an -NH<sub>2</sub> radical,

R<sub>2</sub> denotes H or a -NO<sub>2</sub> radical,

 $R_3$  denotes H or a -NO $_2$  radical or an  $C_1$ - $C_4$  alkoxyl radical,

R<sub>4</sub> denotes a C<sub>1</sub>-C<sub>4</sub> alkyl radical,

X denotes an anion chosen from chloride, methyl sulphate and acetate, wherein;

(ii) dyes of formulae (IV), (V), (VI), (VI'), (VII) include:

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## a) the compounds of formula (IV):

$$A \longrightarrow N \longrightarrow N \longrightarrow N \longrightarrow R_5$$

$$X \longrightarrow R_7 \longrightarrow R_6$$

$$X \longrightarrow R_7$$

$$(IV)$$

in which:

 $R_5$  and  $R_6$ , which may be identical or different, denote a hydrogen atom,  $C_1$ - $C_4$  alkyl radicals which can have a substituent chosen from -CN, -OH and -NH<sub>2</sub> radicals, and a 4'-aminophenyl radical, or form, with a carbon atom of the benzene ring, a heterocycle, oxygenated and/or nitrogenated and optionally having at least one substituent chosen from  $C_1$ - $C_4$  alkyl radicals,

R<sub>7</sub> and R'<sub>7</sub> which may be identical or different, denote a hydrogen atom, a halogen atom chosen from chlorine, bromine, iodine and fluorine, a cyano radical, a C<sub>1</sub>-C<sub>4</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> alkoxy radical, or an acetyloxy radical,

 $X^-$  denotes an anion chosen from chloride, methyl sulphate and acetate; A is a group chosen from structures  $A_1$  to  $A_{19}$ :

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$$R_8$$
  $R_8$   $R_8$   $R_8$   $R_8$   $R_8$   $R_8$ 

$$R_8$$
 $R_8$ 
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$$R_8$$
 $R_8$ 
 $R_8$ 

$$R_8$$
 $R_8$ 
 $R_8$ 

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in which,

and

R8 denotes a  $C_{1\text{-}}C_4$  alkyl radical which can be substitued with a hydroxyl radical and

R9 denotes a C<sub>1</sub>-C<sub>4</sub> alkoxy radical,

b) the compounds of formula (V):

$$R_{12}$$
 $R_{10}$ 
 $R_{11}$ 
 $R_{13}$ 
 $R_{13}$ 

in which:

 $R_{10}$  denotes hydrogen or a  $C_1$ - $C_4$  alkyl radical,

 $R_{11}$  denotes hydrogen or a  $C_1$ - $C_4$  alkyl radical optionally having a substituent chosen from a -CN radical, an amino radical, and a 4'-aminophenyl radical, or forms with  $R_{10}$  a heterocycle, oxygenated and/or nitrogenated and optionally having at least one substituent chosen from a  $C_1$ - $C_4$  alkyl radical,

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 $R_{12}$  and  $R_{13}$ , which may be identical or different, denote a hydrogen atom, a halogen atom chosen from bromine, chlorine, iodine or fluorine, a  $C_1$ - $C_4$  alkyl radical, a  $C_1$ - $C_4$  alkoxy radical, or a -CN radical,

X<sup>-</sup> denotes an anion chosen from chloride, methyl sulphate and acetate;

B is a group chosen from structures B1 to B6:

$$R_{14}$$
 $R_{14}$ 
 $R_{15}$ 
 $R_{16}$ 
 $R_{16}$ 
 $R_{16}$ 
 $R_{17}$ 
 $R_{18}$ 
 $R_{19}$ 
 $R_{19}$ 
 $R_{19}$ 
 $R_{11}$ 
 $R_{11}$ 
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 $R_{11}$ 
 $R_{12}$ 
 $R_{12}$ 
 $R_{13}$ 
 $R_{14}$ 
 $R_{15}$ 
 $R$ 

in which,

 $R_{14}$  denotes a  $C_{1\text{-}}C_{4}$  alkyl radical, and

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 $R_{15}$  and  $R_{16}$ , which may be identical or different, denote a hydrogen atom or a  $C_1$ .  $C_4$  alkyl radical;

## c) the compounds of formulae (VI) and (VI'):

$$E-N=N-(N)_{m}$$

$$R_{18}$$

$$R_{19}$$

$$R_{20}$$

$$(VI)$$

$$(VI')$$

in which:

R<sub>17</sub> denotes a hydrogen atom, a C<sub>1-</sub>C<sub>4</sub> alkoxy radical, a halogen atom chosen from bromine, chlorine, iodine and fluorine, an unsubstitued amino radical, or a substitued amino radical,

 $R_{18}$  denotes a hydrogen atom, a  $C_{1}$ - $C_{4}$  alkyl radical, or forms with a carbon atom of the benzene ring, a heterocycle which is optionally oxygenated and optionally having at least a substituent chosen from a  $C_{1}$ - $C_{4}$  alkyl radical,

 $R_{19}$  denotes a hydrogen atom or a halogen atom chosen from bromine, chlorine, iodine and fluorine,

 $R_{20}$  and  $R_{21}$ , which may be identical or different, denote a hydrogen atom or a  $C_{1-}$   $C_{4}$  alkyl radical,

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m is zero or 1,

X denotes an anion chosen from chloride, methyl sulphate and acetate;E is a group chosen from structures E1 to E8:

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in which

R' denotes a C<sub>1-</sub>C<sub>4</sub> alkyl radical,

when m is 0, then E can also be a group of structure E9:

in which,

R' denotes a C<sub>1-</sub>C<sub>4</sub> alkyl radical,

d) the compounds of formula (VII):

$$G \longrightarrow N \longrightarrow N \longrightarrow J$$
 (VII)

in which,

the symbol G represents a group chosen from structures G1 to G3:

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$$R_{24}$$
 $R_{25}$ 
 $R_{24}$ 
 $R_{25}$ 
 $R_{25}$ 
 $R_{25}$ 
 $R_{25}$ 
 $R_{25}$ 
 $R_{25}$ 
 $R_{25}$ 
 $R_{22}$ 
 $R_{25}$ 
 $R$ 

in which,

 $R_{22}$  denotes a  $C_{1}$ - $C_{4}$  alkyl radical or a phenyl radical optionally having a substituent chosen from a  $C_{1}$ - $C_{4}$  alkyl radical and a halogen atom chosen from chlorine, bromine, iodine and fluorine,

 $R_{23}\ denotes\ a\ C_{1\text{-}}C_{4}\ alkyl\ radical\ or\ a\ phenyl\ radical,$ 

 $R_{24}$  and  $R_{25}$ , which may be identical or different, denote a  $C_1$ - $C_4$  alkyl radical or a phenyl radical or, in the case of structure  $G_1$ , can together form a benzene ring having at least one substituent chosen from a  $C_1$ - $C_4$  alkyl radical, a  $C_1$ - $C_4$  alkoxy radical and an -NO<sub>2</sub> radical, and in the case of structure  $G_2$ , can together form a benzene ring optionally having at least one substituent chosen from a  $C_1$ - $C_4$  alkyl radical, a  $C_1$ - $C_4$  alkoxy radical and an -NO<sub>2</sub> radical, wherein  $R_{24}$  can also denote a hydrogen atom,

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Z denotes chosen from an oxygen atom, a sulphur atom or an -NR<sub>23</sub> radical;

M denotes a -CH radical, a -CR radical wherein R is chosen from a  $C_1$ - $C_4$  alkyl radical, or an -NR<sub>26</sub>(X<sup>-</sup>)<sub>r</sub> radical, wherein r is zero or 1,

K denotes a -CH radical, a -CR radical wherein R is chosen from a  $C_{1}$ - $C_{4}$  alkyl radical, or an -NR<sub>26</sub>(X<sup>-</sup>)<sub>r</sub> radical wherein r is zero or 1,

P denotes a -CH radical, a -CR radical wherein R is chosen from a  $C_{1}$ - $C_{4}$  alkyl radical, or an -NR<sub>26</sub>(X<sup>-</sup>)<sub>r</sub> radical wherein r is zero or 1,

R<sub>26</sub> denotes an oxygen atom, a C<sub>1-</sub>C<sub>4</sub> alkoxy radical or a C<sub>1-</sub>C<sub>4</sub> alkyl radical,

 $R_{27}$  and  $R_{28}$ , which may be identical or different, denote a hydrogen atom, a halogen atom chosen from chlorine, bromine, iodine and fluorine, a  $C_{1-}C_{4}$  alkyl radical, a  $C_{1-}C_{4}$  alkoxy radical or an -NO<sub>2</sub> radical,

X denotes an anion chosen from chloride, iodide, methyl sulphate, ethyl sulphate, acetate and perchlorate, and

wherein at least one of K, M or P denotes  $-NR_{26}(X^-)_r$ , wherein the symbol J is chosen from:

(a) a group of structure J<sub>1</sub>:

$$R_{31}$$
 $R_{29}$ 
 $R_{30}$ 

in which,

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 $R_{29}$  denotes a hydrogen atom, a-halogen atom chosen from chlorine, bromine, iodine and fluorine, a  $C_1$ - $C_4$  alkyl radical, a  $C_1$ - $C_4$  alkoxy radical, a -OH radical, an -NO<sub>2</sub> radical, an -NHR<sub>32</sub> radical, an -NR<sub>33</sub>R<sub>34</sub> radicals, an -NHCO( $C_1$ - $C_4$ )alkyl radical, or forms with  $R_{30}$  a 5- or 6-membered ring which may contain at least one hetero atom chosen from nitrogen, oxygen and sulphur,

 $R_{30}$  denotes a hydrogen atom, a halogen atom chosen from chlorine, bromine, iodine and fluorine, a  $C_{1}$ - $C_{4}$  alkyl radical, a  $C_{1}$ - $C_{4}$  alkoxy radical, or forms, with  $R_{31}$  or  $R_{32}$  a 5- or 6-membered ring which may contain at least one hetero atom chosen from nitrogen, oxygen and sulphur,

 $R_{31}$  denotes a hydrogen atom, an -OH radical, an -NHR $_{32}$  radical or an -NHR $_{33}$ R $_{34}$  radical,

R<sub>32</sub> denotes a hydrogen atom, a C<sub>1-</sub>C<sub>4</sub> alkyl radical, a C<sub>1-</sub>C<sub>4</sub> monohydroxyalkyl radical, a C<sub>2-</sub>C<sub>4</sub> polyhydroxyalkyl radical or a phenyl radical,

 $R_{33}$  and  $R_{34}$ , which may be identical or different, denote a  $C_1$ - $C_4$  alkyl radical, a  $C_1$ - $C_4$  monohydroxyalkyl radical or a  $C_2$ - $C_4$  polyhydroxyalkyl radical, and

- (b) a 5- or 6-membered nitrogenous heterocyclic group which can contain at least one other hetero atom and/or at least one carbonyl group and which can have at least one substituent chosen from a C<sub>1-</sub>C<sub>4</sub> alkyl radical, an amino radical or a phenyl radical.
- 12. **(original)** A composition according to claim 11, wherein said 5- or 6-membered nitrogenous heterocyclic group is chosen from a group of structure J<sub>2</sub>:

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in which,

 $R_{35}$  and  $R_{36}$ , which may be identical or different, denote a hydrogen atom, a  $C_1$ -  $C_4$  alkyl radical, or a phenyl radical,

Y denotes a -CO- radical or a radical

wherein n = 0 or 1, where, when n denotes 1, U denotes a -CO- radical.

## 13. (cancelled)

14. (currently amended) A composition according to claim 1, A composition comprising, in a cosmetically acceptable support suitable for dyeing the hair, at least one direct dye and at least one crosslinked polymer containing acrylic residue units of the structure

$$CH_2 = C - C - OH$$
 $R_1 = 0$ 

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in which  $R_1$  denotes H,  $CH_3$  or  $C_2H_5$ , and  $C_{10}$ - $C_{30}$  alkyl acrylate residue units, wherein said composition is a direct dyeing composition for the hair, wherein said at least one direct dye is a cationic anthraquinonic dye of formula (IX):

in which:

 $R_1$  denotes a hydrogen atom, a -OH radical, a -NH $_2$  radical, or a -NH( $C_1$ - $C_4$ )alkyl radical,

 $R_2$  denotes a -(CH<sub>2</sub>)<sub>n</sub>NR<sub>3</sub>R<sub>4</sub>(R<sub>5</sub>)<sub>m</sub>- radical, in which n denotes 1 or 10, m denotes zero or 1, and

 $R_3$ ,  $R_4$ ,  $R_5$  which may be identical or different, denotes a hydrogen atom or a  $C_{1-}$   $C_4$  alkyl radical, and

wherein  $R_3$  and  $R_4$ , with the nitrogenous atom, can form a 5- or 6-membered heterocycle group which can contain at least one other hetero atom chosen from nitrogen, oxygen or sulphur and optionally having at least one substituent chosen from  $C_1$ - $C_4$  alkyl radicals, amino radicals, and phenyl radicals.

Claims 15-27. (Cancelled)